



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/030,258	01/07/2002	Joachim Charzinski	P01,0563	8900
7590 Fish & Richardson P.C. 225 Franklin Street Boston, MA 02110-2804			EXAMINER HALIYUR, VENKATESH N	
			ART UNIT	PAPER NUMBER
			2616	
SHORTENED STATUTORY PERIOD OF RESPONSE		MAIL DATE	DELIVERY MODE	
3 MONTHS		01/19/2007	PAPER	

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

Office Action Summary

Application No.

10/030,258

Applicant(s)

CHARZINSKI, JOACHIM

Examiner

Venkatesh Haliyur

Art Unit

2616

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 11 December 2006.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-14 (claim 4 canceled) is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-3 and 5-14 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
- 1) ☒ Certified copies of the priority documents have been received.
 - 2) ☐ Certified copies of the priority documents have been received in Application No. _____.
 - 3) ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____

- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date _____
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____

DETAILED ACTION

Response to Amendment

1. The amendment filed on 12/11/2006 has been considered. Therefore, the finality of the rejection communicated via office action of 7/6/2006 has been withdrawn. However, upon further consideration, a new ground(s) of rejection is made in view of Majd et al and Berl et al reference.

2. Claims 1-14 are pending in the application. Claim 4 is canceled.

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 1-3, 5-14 are rejected under 35 U.S.C. 103(a) as being unpatentable over Majd et al. [US Pat: 6,680,948] in view of Berl et al [US Pat: 5,940,390].

Regarding claim 1, Majd et al disclosed in the invention of "System and Method for Transmitting Packets over a Long-Haul Optical Network" disclosed a method for use

in transmission of data packets, the data packets comprising packet headers that include priority information (**DSCP field, Fig 6A/6B, col 7, lines 44-58**), the priority information identifying the data packets as high priority data packets (**premium services**) or as low priority data packets (**assured services, col 8, lines 12-36**), the method comprising: transmitting the data packets via at least one of a first transmission line (**L1 of Fig 5**) and a second transmission line (**L2 of Fig 5**), the second transmission line being redundant to the first transmission line (**col 6, lines 34-67, col 7, lines 1-23**), the data packets being transmitted in accordance with Internet Protocol (**col 7, lines 25-57**); wherein transmitting the data packets comprises: identifying which of the data packets are low priority data packets and which of the data packets are high priority data packets based on the priority information (**based on priority forwarding classifier information, col 8, lines 12-36, Fig 7**); Majd et al disclosed transmitting data packets over first and second transmission lines corresponding to SLA of each customers (**col 8, lines 37-64, col 5, lines 22-50, Fig 4**) and switching from first transmission line to the second transmission line and dropping best effort packets (**low priority packets**) in case of a first transmission link failure (**col 7, lines 1-24, col 9, lines 15-40, Fig 8**), but fails to disclose switching transmission of high priority data packets from the first transmission line to the second transmission line if there is a problem on the first transmission line. However, Berl et al in the invention of "Mechanism for conveying data prioritization information among heterogeneous nodes of a computer network" disclosed a system for transmitting of packets based on the priority information in packet header (**priority field of the header, Figs 9A/9B, col 10,**

lines 37-58) and transmitting low priority data packets over a separate low priority TCP session (**item 738 of Fig 7**) and transmitting high priority data packets over a separate high priority TCP session (**item 732 of Fig 7, Figs 6-8, col 6, lines 21-47, col 9, lines 39-67, col 10, lines 1-16**). Therefore it would have been obvious for one of ordinary skill in the art at the time the invention was made to use the method of transmitting low and high priority data packets over separate transmission channels as taught by Berl et al in the system of Majd et al to transmit high priority data packets via a first transmission line and to transmit low priority data packets via the second transmission line and switching transmission of the high priority data packets from the first transmission line to the second transmission line if there is a problem on the first transmission line and discarding low priority packets when high priority packets are transmitted via the second transmission line. One is motivated as such in order to reroute high priority packets over the redundant transmission line in the event of the failure of the first transmission line to deliver high priority data packets to improve QoS or satisfy SLA's (**Majd et al, col 2, lines 34-67, col 3, lines 61**).

Regarding claims 2,10,14, Majd et al disclosed that the packets are transmitted according to IP protocol and data packet header is according to standard IP network layer protocol, hence TOS field is obviously included in the header (**Fig 6B, col 7, lines 54-58**) that contains priority information and Berl et al disclosed that the priority information is in a TOS of at least some of the packet headers (**Fig 9A, col 11, lines 64-67, col 12, lines 1-5**).

Regarding claims 3,5, Majd et al disclosed prior to switching, that only low priority packets are transmitted via the second transmission line (**corresponding to assured services SLA for a customer**) allocating high priority data packets (**premium services**) and low priority data packets (**assured services**) for transmission via the first and second transmission lines based on predetermined utilizations (**traffic conditions**) of the first and second transmission lines (**col 8, lines 49-54**).

Regarding claims 6-7,11-12, Majd et al disclosed that the first and second transmission media lines comprise junction lines (**L1-L3, Fig 5**) and the problem comprises a fault that affects data packet transmission via the first transmission line (**col 7, lines 14-23**).

Regarding claims 8,13, Majd et al disclosed that the first and second transmission media lines are associated with first and second queues (**col 8,lines 56-64**) respectively and wherein the predetermined utilizations (**traffic conditions, col 7, lines 14-23**) of the first and second transmission lines correspond to fill levels of the first and second queues, respectively and disclosed that the first and second queues comprise first and second buffers (**queues according to QoS information, col 8, lines 56-67, col 9, lines 1-67**).

Regarding claim 9, Majd et al disclosed a system for use in transmission of data packets, the data packets comprising packet headers that include priority information (**DSCP field, Fig 6A/6B, col 7, lines 44-58**), the priority information identifying the data packets as high priority data packets (**premium services**) or as low priority data packets (**assured services, col 8, lines 12-36**), the system comprising: a filter (**item**

302 of Fig 7) to receive the data packets, the filter being configured to identify which of the data packets are low priority data packets and which of the data packets are high priority data packets based on the priority information (**col 8, lines 12-63**), and to output the data packets; a first queue to receive high priority data packets output by the filter; a second queue to receive low priority data packets output by the filter (**queues according to QoS information, col 8, lines 56-63**); and a switch configured to direct the high priority data packets from the first queue to a first transmission line; direct (**remark, col 9, lines 5-14**) the low priority data packets from the second queue to a second transmission line (**item 306 of Fig 7**), the second transmission medium being redundant to the first transmission medium line (**col 7, lines 15-24**). Majd et al disclosed transmitting data packets over first and second transmission lines corresponding to SLA of each customers (**col 8, lines 37-64, col 5, lines 22-50, Fig 4**) and switching from first transmission line to the second transmission line and dropping best effort packets (**low priority packets**) in case of a first transmission link failure (**col 7, lines 1-24**) and re-direct (**remark priority**) the high priority data packets from the first queue to the second transmission line if there is a problem on the first transmission line and discard low priority packets (**col 9, lines 1-67, Fig 8**), but fails to disclose high priority and low priority transmission lines. However, Berl et disclosed transmitting low priority data packets over a separate low priority TCP session (**item 738 of Fig 7**) and transmitting high priority data packets over a separate high priority TCP session (**item 732 of Fig 7, Figs 6-8, col 6, lines 21-47, col 9, lines 39-67, col 10, lines 1-16**). Therefore it would have been obvious for one of ordinary skill in the art at the time the invention was made

to use the method of transmitting low and high priority data packets over separate transmission channels as taught by Berl et al in the system of Majd et al to transmit high priority data packets via a first transmission line and to transmit low priority data packets via the second transmission line and switching transmission of the high priority data packets from the first transmission line to the second transmission line if there is a problem on the first transmission line and discarding low priority packets when high priority packets are transmitted via the second transmission line. One is motivated as such in order to reroute high priority packets over the redundant transmission line in the event of the failure of the first transmission line to deliver high priority data packets to improve QoS or satisfy SLA's (Majd et al, col 2, lines 34-67, col 3, lines 61).

Response to Arguments

6. Applicant's arguments, (see remarks) filed on 12/11/2006, with respect to the rejection(s) of claim(s) 1-14 have been fully considered and are persuasive. Therefore, the rejection has been withdrawn. However, upon further consideration, a new ground(s) of rejection is made in view of Berl et al and Kastenholtz et al reference.

Conclusion

7. Any inquiry concerning this communication or earlier communications should be directed to the attention to Venkatesh Haliyur whose phone number is 571-272-8616.

The examiner can normally be reached on Monday-Friday from 9:00AM to 5:00 PM. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Wing Chan can be reached @ (571)-272-7493. Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the group receptionist whose telephone number is (571)-272-2600 or fax to 571-273-8300.

8. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197(toll-free).

Venkatesh Haliyur

Patent Examiner

WH
1/13/07



WING CHAN
SUPERVISORY PATENT EXAMINER